

Date Issued... 22 February 1961

FIELD _____ AGE: _____

Latitude 41-11-17 Longitude 22-10-10 Grid 10

U.W.L.R. 01.20.45 --- 120.775.

U.W.I. 100-101-101

Big Release Date:

Status

Information Release Date.....

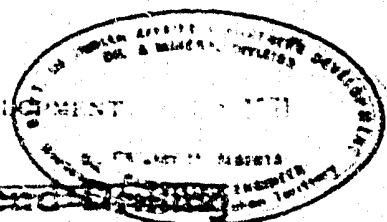
CHANGE OF NAME:

1 AND 52-90 (3-69)



File No
Drilling Authority No. 510

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION



Application to Abandon a Well or ~~Suspend Drilling~~

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to abandon, to suspend drilling:—

Name and number of well Horn R Decalta Deep Lake H-65
Location: Unit 61⁰ H Section 45 Grid 61⁰ 20' N. Lat. 120°45' W.
Latitude 61° 14' 17" Longitude 120° 52' 39"
From Established Reference Marker
Universal Well Location Reference Lat. 61.23805° N., Long. 120.87750° W
Permit No. 4182 Lease No.

WESTERN DECALTA PETROLEUM LIMITED
(Permittee, Lessee, Licensee)

Date of commencement of proposed program Spud: March 9, 1971 11.30 A.M.

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at Nil
Gas at Nil
Water at 3117 to 3145
Total Depth 3301 K.B.
Present condition of well D and A
Date of last operations Rig released March 21/71
11:59 P.M.

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1. 7"	23		385 K.B.	130 sks + 3% CaCl ₂	Nil
2.					
3.					
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	3301 to 2850	Precambrian, Granite Chinchaga, Hume, Hare Indian	wash 80 sks + 4% Gel	
2	1100 to surface	Ft. Simpson	250 sks + 4% Gel	
Cut casing off 3 feet below ground, weld on plate and rod with well marker.				

The following logs have been run IES, BHGSC
Other operations proposed Nil

Operations to be carried out by Kenting Oilwell Drlg Contractor Licence No. 800
Address Fort Simpson, N.W.T.

Responsible Agent in field Gordon Gillis

Dated at Calgary, this 24th Day of March 1971
Signed by *Gordon Gillis* Company Horn River Resources Ltd.
Title President Operator's Exploratory Licence No. 1785

Note:—The Oil Conservation Engineer's office must be notified before work is commenced.

(For OIL AND MINERAL DIVISION use only)

APPROVAL

This application has been examined and proposed programme approved, subject to the following conditions:

Confirming oral approval given by Mr. G.E. Blue
on the 21st March 1971.

Dated 29th March 1971
Oil Conservation Engineer *B. J. Thomas*

LAND 52-90 (5) (2-69)

Forms to be submitted in triplicate to Oil Conservation Engineer,
Department of Indian Affairs and Northern Development, Calgary, Alberta.



Drilling Authority No. 510
Date Issued February 22, 1971

LAND 52-90 (2) (3-70)

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

WELL COMPLETION DATA

To be submitted in duplicate within thirty days after the completion, rework, abandonment, recompletion or suspension of every well.

Well name and number HORN R DECALTA DEEP LAKE H-45
Permit No. 4182 Lease No.
Western Decalta Petroleum Limited Exploratory Licence No. 1696
(Permittee, Licensee, Lessee)
Horn River Resources Ltd. Exploratory Licence No. 1785
(Operator)

Location: Unit H Section 45 Grid 61°20' N., 120°45' W.
Latitude 61°14'17" N. Longitude 120°52'39" W.
Unique well identifier 300H456120120450
Universal Well Location Reference Lat. 61.23805° N., Long. 120.87750° W.

	DATE	DEPTH	Pool(s)	NA
Spudded	Mar. 9/71		Interval(s) open to production	NA
Suspended				
Resumed Operations				
Finished Drilling	Mar. 19/71	3301 (Dr1r)		
Deepened			Elevation: Gr.	925 K.B. 936
Complete (gas/oil)			Rig No.	35
Abandoned	Mar. 21/71	3296 (Log)	Drilling Contractor	Kenting Oilwell Drilling
Rig released	Mar. 21/71		Contractor's Business Licence No.	800

CASING RECORD

Casing Size (Inches)	Grade	Weight	Amount	Set at -	Sacks of Cement and Additives
1. 7"	J55	23#	403.77'	385'	130 sx + 3% CaCl ₂
2.					
3.					
4.					
5.					
6.					

GEOLOGICAL TOPS	ELEVATION		CORE RECORD					
	Depths	Sub-Sea	From	To	Rec.	From	To	Rec.
Ft. Simpson	875	+ 61	Nil					
Horn River	2730	-1794						
Hare Indian	2850	-1914						
Hume	2908	-1972						
Chinchaga	3215	-2279						
Granite Wash	3250	-2314						
Precambrian	3297	-2361						
TD	3301							
			LOG RECORD					
			Run No.	Type of Log		From		To
			1	IES		3295		384
			2	BHCSGRC		3289		384
				</				

F. LLOYD WOOLLEY
PRESIDENT

HORN RIVER RESOURCES LTD.

1020 AQUITAINE TOWER
240 - 5TH AVENUE S.W.
CALGARY 1, ALBERTA

February 22, 1971

Department of Indian Affairs and Northern Development
112 - 11th Avenue S.E.
CALGARY 21, Alberta

Attention: Mr. B. H. J. Thoms

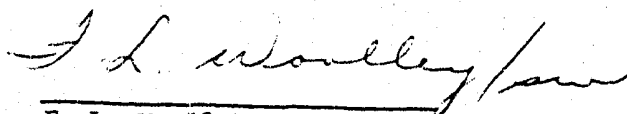
Dear Sir:

Re: "OPERATION REEF" -
Horn R Decalta Deep Lake H-45

We are enclosing herewith for your files two copies of the subject
shot point location plan.

Yours very truly,

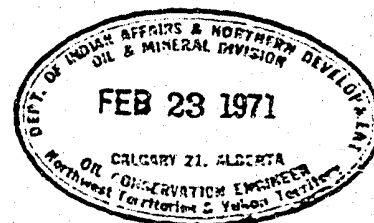
HORN RIVER RESOURCES LTD.



F. L. Woolley
President

FLW/sw
Encls.

MGJ



Drilling Authority No.

510

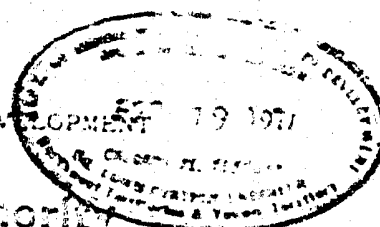
Project No.

File No.



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application for a Drilling Authority



This notice of intention to begin drilling operations, in triplicate, and where required a plan of survey approved by the Surveyor General showing the target area or the site of the well must be submitted and approved before commencing operations.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to drill:

Name and number of well Horn R Decalta Deep Lake H-45

Location: Unit H Section 45

Latitude 61°14'17"

Longitude

Grid 61°20' N. Lat., 120°45' W. Long.

Unique Well Identifier

Universal Well Location Reference

Lat. 61.23805° N., Long. 120.87750° W.

Elevation: Ground 925

K.B. 936

feet above sea-level.

Well is expected to produce from

formation at a depth

of about

feet.

Expected total final depth 3300

Area assigned to well

(For Oil Conservation Engineer's use only)

Permit No. 4182

Lease No.

Acreage 61596

Permittee, licensee, or lessee Western Decalta Petroleum Limited

Exploratory Licence No. 1696

Surface owned by Crown or Crown

(If alternated submit name and address of owner and occupant.)

Petroleum and natural-gas rights owned by Crown

We propose to use the following strings of casing, either cementing or landing them as indicated below:—

Casing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	New or Used	Estimated Depth	Bottom of Cement
1. 8 5/8"	24#	J-55	New	360	125
2.					
3.					
4.					
5.					

Expected water, gas, and oil horizons and type of control equipment Paleozoic (Devonian) Carbonates -

Control with: 2 B.O.P.'s - 10" 900 Series G.K. Hydro

- 10" 900 Series Schaffer Mechanical Double Gate

Well will be drilled with Rotary Rig No. 35 by Kenting Oilwell Drilling

(Drilling Contractor or company)

Responsible agent of applicant:—

At well Gordon Gillis

Contractor's Business Licence No. 800

Address c/o Kenting, Gen. Del

At registered office F. L. Woolley

Ft. Simpson

Address 1020 Aquitaine Tower, 540 Fifth Ave. S.W.

It is understood that if changes become necessary, notice of the change of plan will be submitted.

Calgary 1, Alta.

Dated at Calgary

this 10th day of February 19 71

Signed by [Signature] Company Horn River Resources Ltd.

Title President

Operator's Licence No. 1785

(For Oil and Mineral Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:—

1. Copies of this Drilling Authority shall be exhibited at the Drilling Rig in both the Doghouse and the Drilling Foreman's Office between spud and rig release dates.
2. The Company will submit to this office, on Tuesday of each week, the latest reports

Dated 22nd February 19 71

Please see over page

Oil Conservation Engineer

Forms to be submitted to Oil Conservation Engineer,
Department of Indian Affairs and Northern Development, Calgary, Alberta.

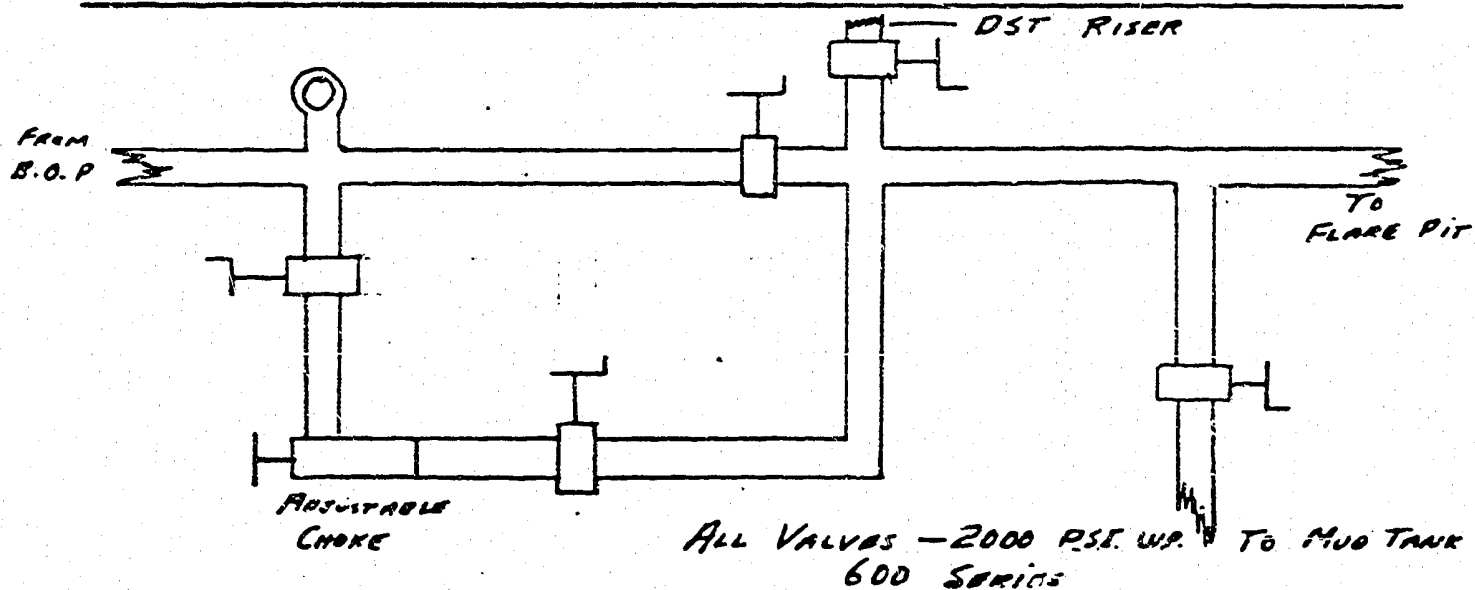
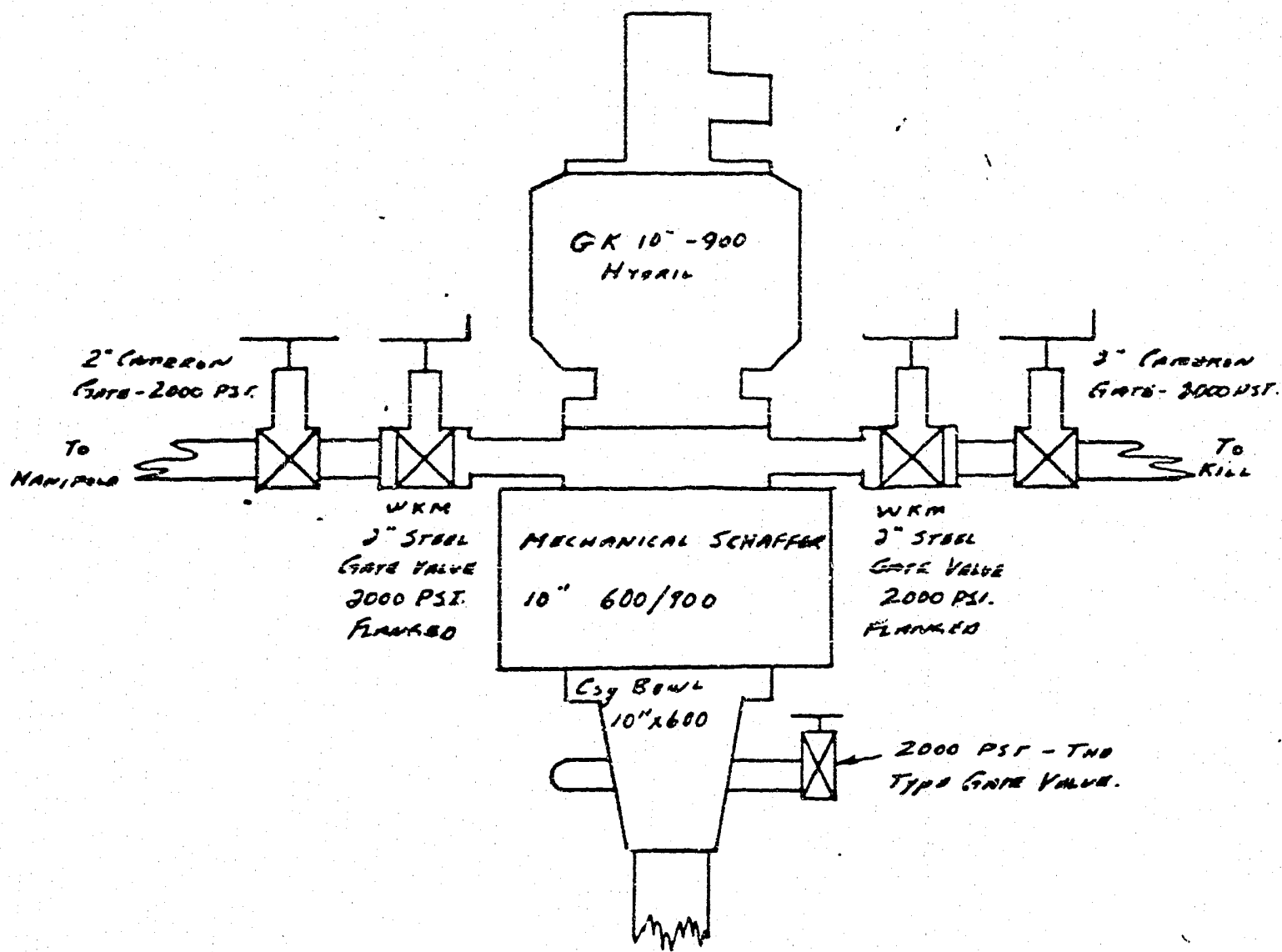
received by radio on the progress of the well.

3. During well drilling and testing operations, every effort shall be made to ensure that drilling fluids, chemicals and wastes shall be disposed of or contained in a manner that will prevent the contamination of adjacent vegetation and surface or sub-surface waters.
4. We draw your attention to Sections 95 and 96 of the Canada Oil and Gas Land Regulations.
5. The surface casing string is to be set at least 75 feet into a competent formation.
6. Any further casing programs are to be approved by the Oil Conservation Engineer before running.



B.H.J. Thoms, Oil Conservation Engineer

Fig # 35



Horn R. Decalta et al ~~Jan-Mar-A-45~~

61°14'17" N. Lat., 120°52'39" W. Long.
GEOLOGICAL PROGNOSIS

Grd.	925	<u>On Reef</u>		<u>Off Reef</u>	
K.B.	935				
Glacial Drift		0		0	
Ft. Simpson		150	+785	150	+785
Horn R.		2535	-1600	2645	-1600
Horn Plateau Reef		2555	-1620		
Hume		2785	-1850	2785	-1850
Silt		3065	-2130	3065	-2130
Chinchaga		3075	-2140	3075	-2140
Red beds		3195	-2260	3195	-2260
Pre Cambrian		3225	-2290	3225	-2290

Coring - Cut core as soon as porosity in Horn Plateau Reef is established.

Testing - Test upper part of reef as soon as sufficient porosity for satisfactory test has been opened up.
 If water recovered, resume drilling. If water free hydrocarbon is recovered core and test until zone fully evaluated.

Samples - 10' samples will be caught from grass roots to T.D. 1 set of bottled samples will be made up at the rig. The remainder of the sample will be forwarded to the Geological Survey of Canada in Calgary.

Logs - Unless additional logs are requested, Induction Electric and Gamma Sonic Caliper logs will be run on reaching T.D.

H. H. PATTERSON
Eric Hanning

Kenting Oilwell Drilling

Horn River Decalta Deep Lake H-45

61° 14' 17.00 120° 52' 39.00

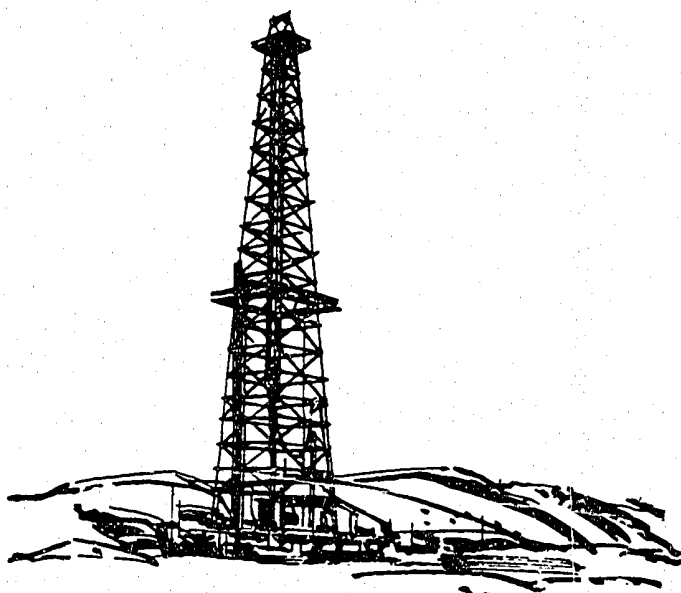
#1

March 17/71

LYNES

BRIGHT NAME IN THE OIL PATCH

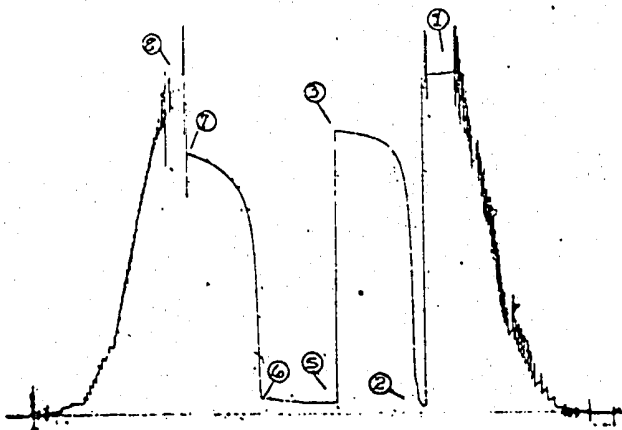
Inflatable and Conventional Packer Tools



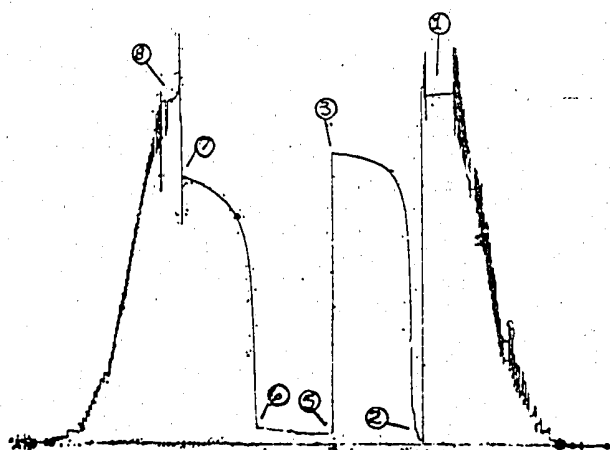
DRILL STEM TEST

TECHNICAL SERVICE REPORT

HAN RIVER DELTA DEEP LAKE H-45
 G1° 14' 17.00 120° 52' 39.00
 901-1



HAN RIVER DELTA DEEP LAKE H-45
 G1° 14' 17.00 120° 52' 39.00
 902-1



NOMENCLATURE (Definition of Symbols)

Q	= average production rate during test, bbls./day
Q _g	= measured gas production rate during test, MCF/day
k	= permeability, md
h	= net pay thickness, ft. (when unknown, test interval is chosen)
μ	= fluid viscosity, centipoise
Z	= compressibility factor
T _r	= reservoir temperature, ° Rankine
m	= slope of final SIP buildup plot, psig/cycle (psig ² /cycle for gas)
b	= approximate radius of investigation, feet
r _w	= wellbore radius, feet
t _o	= total flowing time, minutes
P _o	= Extrapolated maximum reservoir pressure, psig
P _f	= final flowing pressure, psig
P.I.	= productivity index, bbls./day/psi
P.I. _t	= theoretical productivity index with damage removed, bbl./day/psi
D.R.	= damage ratio
E.D.R.	= estimated damage ratio
AOF	= absolute open flow potential, MCF/D
AOF _t	= theoretical absolute open flow if damage were removed
Z	= subsea depth
W	= water gradient based on salinity
H _w	= potentiometric surface

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

DEFINITION OF SYMBOLS

NOMENCLATURE (Definition of Symbols)

Q	= average production rate during test, bbls./day
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DEFINITION OF SYMBOLS

Recorder Depth		3135 ft. Subsea depth		ft. Ticket No. 2023		Hour Recorder No. 901			
$t_0 = 7$		Mins. Initial Shut-In Pressure		Second Flow Pressure		$t_0 = 67$ Mins. Final Shut-In Pressure			
Time, Min. ϕ	$\frac{t_0 + \phi}{\phi}$	PSIG	PSIG ² +10 ⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. ϕ	$\frac{t_0 + \phi}{\phi}$	PSIG	PSIG ² +10 ⁶ (Gas)
0	----	35				0	----	72	
5	2.400	241				5	14.400	745	
10	1.700	1073				10	7.700	933	
15	1.467	1184				15	5.467	1013	
20	1.350	1233				20	4.350	1061	
25	1.280	1259				25	3.680	1097	
30	1.233	1277				30	3.233	1124	
35	1.200	1290				35	2.914	1146	
40	1.175	1299				40	2.675	1165	
45	1.156	1306				45	2.488	1179	
50	1.140	1311				50	2.340	1191	
55	1.127	1316				55	2.218	1201	
60	1.117	1319				60	2.117	1212	

[illegible]

PRESSURE DATA

Rec. No. 901
 Depth 3135 ft.
 P_o^2 (Gas) _____ psig²
 P_o 1368 psig
 m 482 psig/cycle
~~psig/cycle = 1368~~
 Initial SIP ☒ 1362 psig.
 2nd SIP ☐ _____
 Final SIP ☐ 1368 psig.

$\frac{t_o + \phi}{\phi}$

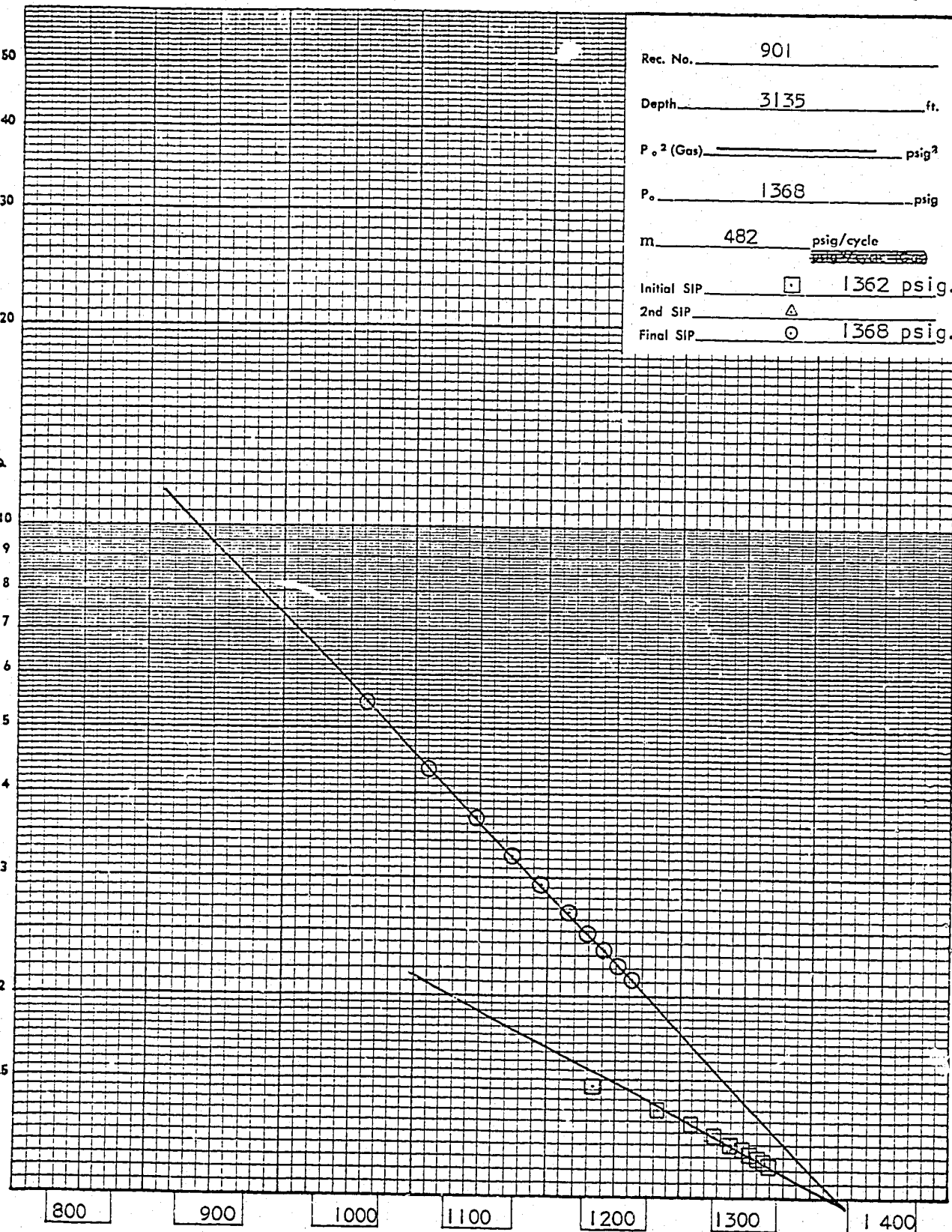
10
 9
 8
 7
 6
 5
 4
 3
 2
 1.5
 1

800 900 1000 1100 1200 1300 1400

PSIG (OIL OR WATER)

DST # 1

PRESSURE EXTRAPOLATION PLOT



LYNES UNITED SERVICES LTD.

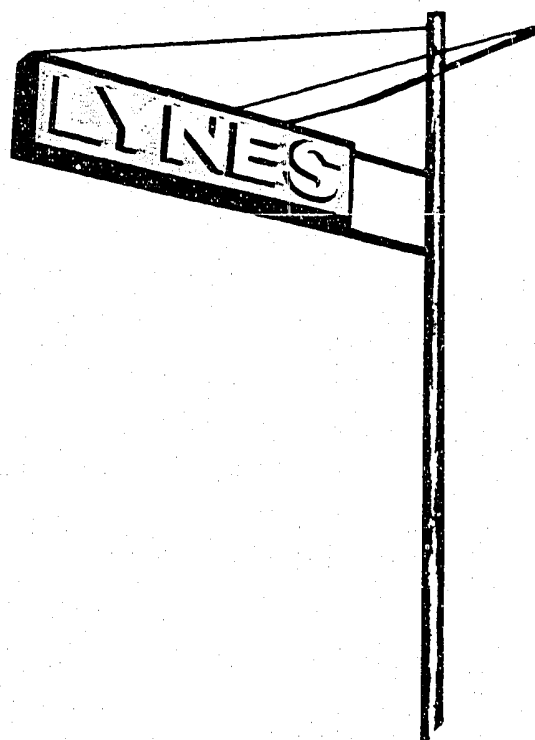
TEST DATA		Test No. 1		Lynes Test 1		GENERAL INFORMATION	
Formation		Hume		T.D. 3145		Company Kenting Oilwell Drilling	
Interval Tested		3117		Ft. to 3145		Ft. Address	
Feet of Net Pay Tested		28				Ft.	
Type of Test		Dual Bottom Hole Conv.					
Cushion		nil		Amount		Ft.	
Started in Hole at		7:30		Hrs. Tool Open at		9:22 Hrs.	
Pre-Flow		7		Mins. Initial Shut-in		60 Mins.	
2nd Flow				Mins. Second Shut-in		Mins.	
Final Flow		60		Mins. Final Shut-in		60 Mins.	
Remarks:							
Blow:		Tool open with small initial puff. Decreasing to very weak throughout the test.					

GAS BLOW MEASUREMENTS				MUD AND HOLE DATA			
Measured with				Mud Type Gel			
				Weight 9.3 Viscosity 115 Water Loss 9.0			
				Filter Cake 2/32" Bottom Hole Temperature 850			
Time				Drill Pipe Size 3 1/2" IF Weight 13.30			
Surface Choke				Drill Collars 3 1/2" XH I.D. Feet Run 600			
Reading Inches				Main Hole or Casing Size 6 1/4"			
Cubic Feet/Day				Rathole or Liner Size No. of Feet			
				Bottom Hole Choke Size 3/4"			
				Surface Choke Size 1"			
				Packer Rubber Size 5 1/2"			
				REMARKS Shut-in pressures suggest relatively low permeability within the interval tested.			

RECOVERY			
TOTAL FLUID RECOVERED		90 Ft. Consisting of:	
90		Ft. of salt water	
		Ft. of	
		Ft. of	
		Ft. of	
Test was/was not Reverse Circulated		was not	
Oil Recovery A.P.I.		Water Specific Gravity	
Salinity		100,000 PPM	

PRESSURE READINGS		Inside _____ Outside _____ X		Inside _____ Outside _____ X		Inside _____ Outside _____		Inside _____ Outside _____	
Recorder No. 901		Recorder No. 902		Recorder No. _____		Recorder No. _____		Recorder No. _____	
Capacity 3400		Capacity 3300		Capacity _____		Capacity _____		Capacity _____	
Depth 3135		Depth 3140		Depth _____		Depth _____		Depth _____	
NUMBER KEY:									
1 - INITIAL HYDROSTATIC		1585		1591					
2 - PRE-FLOW		35		20					
3 - INITIAL SHUT-IN		1319		1325					
4a - 2nd INITIAL FLOW									
4b - 2nd FINAL FLOW									
4c - 2nd SHUT-IN									
5 - 3rd INITIAL FLOW		56		53					
6 - FINAL FLOW		72		70					
7 - FINAL SHUT-IN		1212		1218					
8 - FINAL HYDROSTATIC		1567		1575					

Kenting Oilwell Drilling Company
Horn River Decalta Deep Lake H-45
610 14' 17.00 1200 52' 39.00
Well Name and Description
#1
Test No.
March 17/71
Date of Test



LYNES UNITED SERVICES LTD. 262-4501 CALGARY, ALBERTA

OPERATION REEF
NORTHWEST TERRITORIES
CANADA

Geological and Engineering
REPORT

HORN R DECALTA DEEP LAKE H-45

PREPARED FOR
HORN RIVER RESOURCES LTD.

PREPARED BY
JAMES A. LEWIS ENGINEERING CO. LTD.
Petroleum Reservoir Analysts
CALGARY - ALBERTA

CEMENTING RECORD (Plug, Squeeze, etc.)				PERFORATING RECORD (Bullet, Jet)				SERVICING RECORD (Acidizing, Fracing, etc.)			
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
Mar. 21/71	3301	2850	80 sx / 4% gel								
Mar. 21/71	1110	surface	250 sx / 4% gel								
			Welded on steel plate and marker								

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	L.S.I. Mins.	F.S.I. Mins.	L.S.I.B.H.P.	F.S.I.B.H.P.	L.F.B.H.P.	F.F.B.H.P.	L.H.P.	F.H.P.	REMARKS
1	Mar. 17/71	Hume	3117	3145	60	60	60	1330	1219	50	66	1594	1568	Recovered 90' salt water.

ANALYSIS						PRESENT STATUS OF WELL				
Lab. No.	Sample	From	To	Source	Remarks	Oil		(Interval.)	Company	
				None					Signed by	<i>Shulacee</i>
						Gas		(Interval.)	Title	President
						Dry	X		Date	July 9, 1971
						Susp.				

Forms to be prepared in duplicate and forwarded to the Oil
Conservation Engineer, Calgary, Alberta.

INTRODUCTION

This is a concise report of the operations conducted at the well,

Horn R Decalta Deep Lake H-45

The well was drilled through the co-operative exploration program conducted by Horn River Resources Ltd. under

"OPERATION REEF"

This report was compiled by James A. Lewis Engineering Co. Ltd. from drilling data taken from the tour reports of Kenting Oilwell Drilling Ltd., and geological data supplied by Western Decalta Petroleum Ltd.

JAMES A. LEWIS ENGINEERING CO. LTD.



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HORN R DECALTA DEEP LAKE H-45
61° 14' 17" N. Lat. 120° 52' 39" W. Long.

SPUD: March 9, 1971 11:30 A.M.

SURFACE CASING: 7" - 23# J-55, landed at 385 K.B., cemented with
130 sacks cement plus 3% calcium chloride. Plug
down 9:05 A.M., March 10, 1971.

TOTAL DEPTH: 3301 K.B.

LOGS: Schlumberger - IES, BHGSC

LOG TOPS:	Ft Simpson	875
	Horn River	2730
	Hare Indian	2850
	Hume	2908
	Chinchaga	3215
	Granite Wash	3250
	Precambrian	3297
	T.D.	3301

TESTS:	DST No. 1	3117 to 3145
	Recovered 90 feet salt water,	100,000 PPM salt
	Preflow	7 min.
	Initial shut in	60 min.
	Valve open	60 min.
	Final shut in	60 min.
	Initial hydrostatic	1594 psi
	Final hydrostatic	1568 psi
	Initial shut in	1330 psi
	Final shut in	1219 psi
	Initial flow	50 psi
	Final flow	66 psi

ABANDONMENT PROGRAM:

Plug No. 1 3301 to 2850, run 80 sacks cement plus 4% Gel.

Plug No. 2 1100 to surface, run 250 sacks cement.

Cut casing off three feet below ground, weld on plate and rod with
well marker.

Rig released March 21, 1971. 11:59 P.M.

Section 1

GENERAL

SUMMARY OF WELL DATA

WELL: Horn R Decalta Deep Lake H-45

NAME OF OPERATOR: Horn River Resources Ltd.
1020 Aquitaine Tower, 540 Fifth Avenue S.W., Calgary 1

LEGAL DESCRIPTION: Unit H, Section 45 Grid 61° 20' N. Lat., 120° 45' W. Long.

LOCATION: LATITUDE: 61° 14' 17" N LONGITUDE: 120° 52' 39" W

UNIVERSAL WELL LOCATION REFERENCE: Lat. 61.23805° N. Long. 120.87750° W

UNIQUE WELL IDENTIFIER: 300H456120120450

CO-ORDINATES: None

PERMIT OR LEASE: 4182

PERMITTEE, LICENCEE, LESSEE: Western Decalta Petroleum Ltd.

DRILLING AUTHORITY: No. 510 DATE: February 22, 1971

CLASSIFICATION: New Field Wildcat

ELEVATION: GROUND: 925' K.B. 936'

DRILLING CONTRACTOR: Kenting Oilwell Drilling Ltd. Rig. No. 35 Rotary

WELLSITE GEOLOGIST: Western Decalta Petroleum Ltd.

SURFACE CASING: 7" - 23 lb. - J-55 Set @ 385' c/w 130 sax + 3% CaCl₂

HOLE SIZE: Surface Hole 9-7/8", 0 - 390', Main Hole 6-1/4", 390' - 3,301'

MUD SYSTEM: Gel Chemical

CORES: None Taken

FORMATION TESTS: DST No. 1: 3,117' - 3,145' - Hume

ABANDONMENT PLUGS: Plug No. 1: 3,301' - 2,850' - 80 sax + 4% Gel
Plug No. 2: 1,100' - surface - 250 sax + 4% Gel

LOST CIRCULATION: None

LOGS: BHCSGRC - 3,289' - 384'
IES 3,295' - 384'

WELL SPUDDED: 11:30 a.m., March 9, 1971

FINISHED DRILLING: 8:30 a.m. March 19, 1971

RIG RELEASED: 11:30 a.m. March 21, 1971

TOTAL DEPTH: 3,301'

STATUS: Drilled and Abandoned

Section 2
GEOLOGICAL

FORMATION TOPS

<u>Formation</u>	<u>Sample</u>	<u>E. Log</u>
Glacial Drift	0-875	
Ft. Simpson	875	878
Horn River	2730	2760
Hare Indian	2850	2855
Hume (Nahanni?)	2900	2898
Chinchaga	3215	3210
Granite Wash	3250	3255
Precambrian	3297	No log
T.D. Driller	3301'	

Schlumberger 3291' (depth reached)

Horn Resources Decalta et al Deep Lake H-45

61° 14' N.L. 120° 58' W.L.
El. 925' (est.) K.B. 935' (est.)

SAMPLE DESCRIPTIONS

0- 875	Glacial drift apparently mainly fluvium; gravels, pea gravels and some clays.
875-2730	<u>Ft. Simpson - Imperial Fmts.</u> Shale, grey to black, and grey-green, in upper part, non-calcareous, in part slightly silty. Platy fissile beds become prominent downward. There is a good deal of glacial material in the upper part of this sequence as casing was set above bed rock at 385'.
2730-2850	<u>Horn River Fmt.</u> Shale, dark brown, very slightly silty.
2850-2900	<u>Hare Indian River Fmt. ?</u> Shale, grey-green (a bright pale green when wet) platy and splintery, non-calcareous.
2900-2950	<u>Hume Fmt. (Nahanni? Fmt.)</u> Limestone, crystalline, to dense, grey brown and grey. Minute clusters of calcite crystals suggest earlier presence of some porosity.
2950-3000	Limestone, brown and grey brown, finely crystalline with interbedded and some intergranular anhydrite.
3000-3090	Limestone, dark grey and buff, crystalline and dense slightly dolomitic, grey-buff limestone.
3090-3100	Dolomite, dense buff to brown. Contains scattered minute quartz crystals and veinlets.
3100-3110	Dolomite, dark grey crystalline, slightly calcareous.
3110-3120	Dolomite, buff, finely crystalline, siliceous, slightly calcareous.

Horn Resources Decalta et al Deep Lake H-45

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Shale, grey-green (a bright pale green when wet) platy and splintery, non-calcareous.
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Limestone, crystalline, to dense, grey brown and grey. Minute clusters of calcite crystals suggest earlier presence of some porosity.
- 2950-3000 Limestone, brown and grey brown, finely crystalline with interbedded and some intergranular anhydrite.
- 3000-3090 Limestone, dark grey and buff, crystalline and dense slightly dolomitic, grey-buff limestone.
- 3090-3100 Dolomite, dense buff to brown. Contains scattered minute quartz crystals and veinlets.
- 3100-3110 Dolomite, dark grey crystalline, slightly calcareous.
- 3110-3120 Dolomite, buff, finely crystalline, siliceous, slightly calcareous.

3120-3135	Dolomite, buff, crystalline, in part siliceous, slightly calcareous, slight porosity.
3135-3160	Dolomite, buff to grey, crystalline, slightly calcareous, in part siliceous. Quartz is white and crystalline with some massive milky blue quartz.
3160-3180	Dolomite, buff, dense, siliceous and light grey anhydrite.
3180-3200	Dolomite, dense to finely crystalline, siliceous and cherty with some disseminated pyrite and galena.
3200-3215	Dolomite, grey-buff, dense to finely crystalline.
3215-3250	<u>Chinchaga Fmt.</u> Anhydrite and some grey, dense, dolomite.
3250-3297	<u>Granite Wash</u> Scattered igneous grains in samples.
3297-3301	<u>Precambrian</u> Basement - quartzite.
3301'	Total Depth.

GEOLOGY OF HORN RESOURCES

Decalta et al Deep Lake H-45

INTRODUCTION

The above well at Lat. $61^{\circ} 14' 17''$ Long. $120^{\circ} 52' 39''$ was drilled March 9 - March 21, 1971 to 3301 feet to test a seismic anomaly indicative of Horn Plateau Reef.

GEOLOGY

The Horn Plateau Reef was not present at this location. The equivalent facies Horn River and Hare Indian formations were identified. The youngest carbonates encountered are termed Hume Fmt. There is some slight porosity in this formation scattered over the interval 3117' - 3135' and possibly 3160' - 3190'. The latter interval is a siliceous dolomite and the presence of silica in the matrix may account for characteristics of the log. No porosity was observed and drill penetration was slow over that interval.

The carbonate sequence is not quite identifiable - it is a siliceous dolomitic carbonate down to the Chinchaga Fmt. at 3215 feet, where typical grey anhydrite beds with some dolomite occur. The section immediately above this is more like the Nahanni Fmt. than the equivalent Keg River Fmt. lithology. The basement at -2362' is regionally low, so that a localized basin may have developed and encompassed an interfingering of various Middle Devonian lithologies or facies.

The sole importance of this postulation is that any porous beds in such a basin may pinch out. From the history of this well, they may not be important.

The Decalta Deep Lake well encountered 875 feet of glacial gravels lying on the impervious Ft. Simpson shale. The Jeanne-Marie River dissects this locality with a chain of lakes connected by a meagre stream which is only faintly incised. It is, however, a well defined drainage pattern, and the only such locally.

The presence of 875 feet of glacio-fluvial gravels dissected by a definite drainage implies that these gravels are water flooded. The gravels themselves are related to glacial Lake MacConnell, in that they belong to some ancestral drainage flowing into this lake.

The significance of these gravels is that they are an aquifer lying on an impervious shale and because of the thickness of this aquifer it must be considered in seismic surveying.

The drainage pattern of the Jeanne-Marie River is notable and it may be that this stream circumnavigates the gravel beds. There are low ridges covered with Jackpine (suggesting gravel or sand) throughout the area. It is possible that the course of the Jeanne-Marie River delineates the occurrence of these particular gravels. This concept should be kept in mind in evaluation of seismic data within this particular drainage locality.

W. B. Gallup
W. B. Gallup

Section 3

DRILLING AND ENGINEERING

SUMMARY OF DAILY DRILLING OPERATIONS

Horn R Decalta Deep Lake H-45

Date	Depth	Operation
3- 9-71	0'	Rigging up to spud in.
3-10-71	390'	Running surface casing. Drilled 9-7/8" hole to 390'. Spudded in 9:30 a.m., March 9, 1971.
3-11-71	520'	Drilling 6-1/4" hole. Ran 12 joints 7" - 23 lb./ft. - J-55 casing with Guide Shoe and Baffle Plate. Landed at 385' K.B., cemented with 130 sacks of neat cement plus 3% CaCl ₂ . Good returns. Plug down 9:05 a.m., March 10, 1971. Headed up; pressure tested Blind Rams, Pipe Rams, Hydril and Kelly cock to 1,000 psi, each unit held for 15 minutes. Drilled out with 6-1/4" bit.
3-12-71	1135'	Drilling 6-1/4" hole. Mud wt. 8.9 Vis. 76
3-13-71	1755'	Drilling 6-1/4" hole. Mud wt. 9.1 Vis. 70
3-14-71	2251'	Drilling 6-1/4" hole. Mud wt. 9.2 Vis. 70
3-15-71	2671'	Drilling 6-1/4" hole. Mud wt. 9.3 Vis. 65
3-16-71	2990'	Drilling 6-1/4" hole. (Hole problems). Mud wt. 9.3 Vis. 69
3-17-71	3104'	Drilling 6-1/4" hole. Mud wt. 9.3 Vis. 90
3-18-71	3162'	Drilling 6-1/4" hole. Pulled DST No. 1. Mud wt. 9.3 Vis. 100 DST No. 1: 3117' - 3145', Hume. Times: 7 minutes, 60 minutes, 60 minutes. I.H.S. 1585 In. Flow 35 I.S.I. 1319 Final Flow 72 Final S.I. 1212 Final H.S. 1567

Recovered 90' salt water, 100,000 ppm.

SUMMARY OF DAILY DRILLING OPERATIONS (Continued)

Horn R Decalta Deep Lake H-45

Date	Depth	Operation
3-19-71	3298'	Drilling 6-1/4" hole. Mud wt. 9.3 Vis. 100
3-20-71	3301'	(T.D.) Conditioning hole to log.
3-21-71	3301'	Waiting on orders. Ran logs as follows: Induction Electric 3295' - 384' BHCSGRC 3289' - 384'
3-22-71		Abandoned. After logging ran Plug No. 1: 3301' - 2850', 80 sacks + 4% Gel. Not Felt. Plug No. 2: 1100' to surface, 250 sacks plus 4% Gel. Plug down 6:00 p.m. Rig released 11:30 p.m., March 21, 1971

BIT RECORD

WELL: Horn R Decalta Deep Lake H-45

BIT NO.	SIZE & SER. NO.	DEPTH OUT, Feet	FOOTAGE, Feet	HOURS	WEIGHT, M Pounds	R.P.M.	PUMP PRESSURE, Psi
SURFACE HOLE							
1A	9-7/8	390	390	13½	10-18	150	
MAIN HOLE							
1	6-1/4-FZ964	860	470	8-1/4	10	160	
2	6-1/4-FK769	1104	244	9¾	8	160	
3	6-1/4-29007	1444	340	13¾	15	160	
4	6-1/4-29008	1947	503	11	18	180	
5	6-1/4-10572	2267	320	14½	6-12	180	
6	6-1/4-FM005	2671	404	16¼	18	120	
7	6-1/4-87933	2990	319	14¾	25	120	
8	6-1/4-17902	3104	114	11¾	25	120	
9	6-1/4-18647	3145	41	5½	25	80	
10	6-1/4-528391	3225	80	11½	25	80	
11	6-1/4-21775	3301	76	9¾	25	80	

SUMMARY

Surface Hole 390 of 9-7/8 " 13-1/2 hours on bottom.
Main Hole 2911 of 6-1/4 " 126-1/2 hours on bottom.
Core Hole — of — " — hours on bottom.

SUMMARY OF MUD ADDITIVES

Horn R Decalta Deep Lake H-45

Hydra-gel	37,500 lbs.
Caustic	500 lbs.
Bicarbonate	100 lbs.
CMC	300 lbs.
Lime	50 lbs.
Spersene	600 lbs.
DV-68	22 gal.

SURVEY RECORD

Horn R Decalta Deep Lake H-45

Depth, Feet	Deviation, Degrees
Surface Hole	
75	1/4
160	3/4
189	3/4
217	3/4
273	3/8
390	3/4
Main Hole	
611	3/4
855	2-7/8
916	3-7/8
978	2-1/4
1072	2-1/2
1135	2-1/4
1195	2-1/4
1298	1-3/4
1381	1-7/8
1444	1-7/8
1537	1-3/4
1631	1-7/8
1755	1-1/2
1879	3
1940	3
2001	3
2033	3
2095	3-1/4
2157	3-1/2
2220	3-1/2
2267	3

SURVEY RECORD (Continued)

Horn R Decalta Deep Lake H-45

Depth, Feet	Deviation, Degrees
Main Hole (Cont'd)	
2344	2-1/2
2434	2-1/8
2563	2-7/8
2656	2
2749	2
2843	2-7/8
2900	2-3/4
3145	1-7/8

DRILL STEM TEST REPORT

WELL: Horn R Decalta Deep Lake H-45

DATE: March 17, 1971 TEST NO. 1
 INTERVAL TESTED: 3117 - 3145' FORMATION: Hume
 TOTAL DEPTH DRILLER: 3145' LOGS: None Run
 HOLE SIZE: 6-1/4" RAT HOLE SIZE: -
 TESTING COMPANY: Lynes United OPERATOR: Lewchuk

MUD

Type Gel Chemical
 Wt. 9.3
 Visc. 115
 W.L. 9.0
 pH -
 F.C. 2/32
 Conditions Fair

DRILL PIPE

Type IF
 Size 3-1/2"
 Size T.J. 4-3/16
 Collars 3-1/2" XH
 Jars -
 Safety Joint -
 Pumpcut Sub. -

TEST TOOL

Size Rubber 5-1/2"
 Type -
 Tool Type -
 Size Choke 3/4
 Wt. to Set -
 Pull Loose -
 Fluid Cushion -

Bit off Bottom 4:15 p.m. Preflow 7 min. B.H. Temp. 85 °F.
 Start Tester in 7:15 p.m. I.S.I. 60 min. Gauge Depths 3135 K.B.
 Tester on Bottom 9:15 p.m. Tool Open 60 min. 3140 K.B.
 Tool Open 9:22 p.m. F.S.I. 60 min. -
 Tool Closed 9:29 p.m. Upper Gauge Lower Gauge
 Tool Open 10:29 p.m. I.H.S. 1585 psig I.H.S. 1591 psig
 Tool Closed 11:29 p.m. Preflow 35 psig Preflow 20 psig
 Tool Loose 12:29 a.m. 3/18/71 I.S.I. 1319 psig I.S.I. 1325 psig
 Tool Out 2:45 a.m. Initial Flow 56 psig Initial Flow 53 psig
 Rubber Condition O.K. Final Flow 72 psig Final Flow 70 psig
 Test O.K. Yes Final S.I. 1212 psig Final S.I. 1218 psig
 F.H.S. 1567 psig F.H.S. 1575 psig

BLOW: Weak throughout.

RECOVERY: Recovered 90' salt water, 100,000 ppm.

SURFACE CASING REPORT

Horn R Decalta Deep Lake H-45

Date: March 10, 1971

Ran 12 joints of 7", 23 lb./ft. casing with one guide shoe, one baffle plate and one centralizer.

Total Length:	403.77'
Landed at:	385.00' K.B.

Cemented to surface with 130 sacks cement and 3% calcium chloride.

ABANDONMENT REPORT

One plug was run in two stages from T.D. 3301' to 2850' with 80 sacks of cement and 4% Gel.

Another plug was from 1100' to surface with 250 sacks of cement and 4% Gel.

The casing was cut off and a plate welded on.

Section 4

WELL LOG DATA

Horn R Decalta Deep Lake H-45

Log	Scale	Interval
Induction Electric	2" & 5"/100'	3295' to 384'
Borehole Compensated Sonic Gamma-Ray Caliper	2" & 5"/100'	3289' to 384'

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 35 LOCATION H.R. DE CALTA DEER LAKEAREA H-45DATE MARCH 21 1971

Tour — Midnight - 8 a.m.		From										Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time						
Specify actual hours worked		Hrs.		No.		Size		Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Start			Stop			Interval					
Driller	<u>K. ANDERSON</u>	<u>12</u>																												<u>Log</u>			<u>12:10</u>			<u>2:15</u>			<u>2 1/4</u>		
Derrick	<u>M. JOHNSON</u>	<u>12</u>																												<u>1000 Out. hoggers</u>			<u>2:15</u>			<u>2:45</u>			<u>1/2</u>		
Floor																														<u>Wait on ORDERS</u>			<u>2:45</u>			<u>8:00</u>			<u>5 1/4</u>		
Floor	<u>G. PROCTOR</u>	<u>12</u>																																							
Floor																																									
Motor	<u>C. CADIEUX</u>	<u>12</u>																																							
Mechanic																																									
Extra																																									
Injuries:																																									
Fires:																																									
Tour — 8 a.m. to 4 p.m.		Specify actual hours worked		Hrs.																																					
Driller	<u>N. TOMPKINS</u>	<u>12</u>																																							
Derrick	<u>E. LAMASH</u>	<u>12</u>																																							
Floor	<u>M. MUSHUMARSKI</u>	<u>12</u>																																							
Floor																																									
Motor	<u>R. MUSHUMARSKI</u>	<u>12</u>																																							
Mechanic																																									
Extra																																									
Injuries:																																									
Fires:																																									
Tour — 4 p.m. to Midnight		Specify actual hours worked		Hrs.																																					
Driller																																									
Derrick																																									
Floor																																									
Floor																																									
Motor																																									
Mechanic																																									
Extra																																									
Injuries:																																									
Fires:																																									
Total Contractor Time																																									
Total Company Time																																									
Approved by																																									

Totco Ring on Bit No.:

D.P. Caliper Date:

Results:

From Pipe Rack

Total Contractor Time

Hrs.

Toolpusher

Total Company Time

Hrs.

Approved by

B.O.P. Test-Operated

Time

Results:

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 35 LOCATION H.R. DECEMBER 14 DRRP LAKE AREA H-45 DATE March 20, 1971

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS			FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons
Driller K. Anderson 12			3301		43	20	4 1/2	2	27				43
Derrick K. Anderson 8													
Floor L. Suppala 3													
Floor													
Floor													
Motor B. BONDOLLO 8													
Mechanic													
Extra													
Injuries:													
Fires:													

Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS			FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons
Driller M. G. G. 8							20	4 1/2	2	27			43
Derrick M. G. G. 8													
Floor J. G. G. 8													
Floor													
Motor C. G. G. 4													
Mechanic													
Extra													
Injuries:													
Fires:													

Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS			FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons
Driller N. T. 12			3301		43	20	4 1/2	2	27				43
Derrick E. L. 8													
Floor M. M. 8													
Floor													
Floor													
Motor R. M. 8													
Mechanic													
Extra													
Injuries:													
Fires:													

REMARKS	Time		
	Start	Stop	Interval
Rig SURV.	12:00	12:15	15
TRIP IN WORK BRIDGES	12:15		
FROM 600' TO 400'	3:00		2 3/4
REAM FROM 3140-3270	3:00		
+ CLEAN 30' TO BTM.	5:00		2
CIRC COND MUD AND	5:00		
HOLE	8:00		3
Company Time			
Cont'r Time			
Rig SER ✓ BOPS	8:00	8:15	15
TRIP OUT	8:15	10:45	2 1/2
TRY LOG'S HUNG UP @	10:45		
23 85		12:00	1 1/4
TRIP IN SLOW	12:00	2:15	2 1/4
BREAK CIR + CIR	2:15	2:45	30
CLEAN VALVES + Suction 0-300	2:45	3:30	45
CIR COND HOLE TO LOG	3:30	4:00	30
Company Time			
Cont'r Time			
CIR COND HOLE + mud	4:00	5:30	1 1/2
PUMPY TRIP 155 HOLE TIGHT	5:30	7:15	1 1/4
CIR COND HOLE	7:15	8:15	1
Blow Kelly Hoist to Log	8:15		
SLOW CHAIN OUT		10:45	2 1/2
Rig to Log + Log	10:45	12:00	1 1/4
Company Time			
Cont'r Time			

Totco Ring on Bit No. _____ D.P. Caliper'd Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher _____
 Total Company Time _____ Hrs. Approved by _____

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 35 LOCATION H-45 DECATA DEE LAKE AREA H-45 DATE MARCH 19 1971

Tour — Midnight - 8 a.m.		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	
No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars	Other Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	TOTAL	
Driller	K. ANDERSON	12			3247	51	3248	6 3/4	43	20	4 1/2	20				43		
Derrick	F. FRASER	8			11	6 1/4	W7	3-16	21755	25	80	73	9 1/4				600.01	
Floor																		
Floor	L. SAPPOLA	8																
Motor	B. BENFELD	8																
Mechanic																		
Extra																		
Injuries:																		
Fires:																		
Tour — 8 a.m. to 4 p.m.		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	
No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars	Other Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	TOTAL	
Driller	M. SOUTHWELL	8			3298	3	3301	1 1/2	43									
Derrick	C. PROCTOR	8			11	6 1/4	W7	3-18	21785	25	80	76	9 3/4				600.01	
Floor																		
Floor																		
Motor	C. CARTER	9																
Mechanic																		
Extra	V. Hupp	9																
Injuries:																		
Fires:																		
Tour — 4 p.m. to Midnight		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	
No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars	Other Ft.	C.B. Ft.	Subs. Ft.	Ft. Up On Kelly	TOTAL	
Driller	D. TOMPKINS	12			3301													
Derrick	E. LAMASH	8			11	6 1/4	OW5											
Floor	M. MUSHUMANSKI	8																
Floor																		
Motor	R. MUSHUMANSKI	8																
Mechanic																		
Extra																		
Injuries:																		
Fires:																		

REMARKS	Time		
	Start	Stop	Interval
DRILL	12:00	2:45	2 3/4
RIG SER	2:45	3:00	1/4
DRILL	3:00	4:30	1 1/2
CIRC SAMPLE	4:30	5:00	1/2
DRILL	5:00	7:30	2 1/2
REPAIR FUEL LINE L.W. MOTOR	7:30	8:00	1/2
Company Time			
Cont'r Time			
DRILL	8:00	8:30	1/2
CIRC	8:30	10:00	1 1/2
DUMPY TRIP 10 STOS	10:00	10:45	3/4
CIRC WAIT ON LOGGERS	10:45	4:00	5 1/4
Company Time			
Cont'r Time			
CIRC WAIT ON LOGGERS	4:00	4:30	1/2
HOLD TO LOG	4:30	6:30	2
WAIT ON LOGGERS	6:30	9:00	2 1/2
RIG UP & LOG HIT BRIDGE 7 10'	9:00	10:00	1
RUN IN CLEAN BRIDGE	10:00	11:00	1
CHANGED OIL & FILTERS IN MOTOR			
ROTARY TABLE & SWIVEL			
RIG UP TO LOG & LOG			
HIT BRIDGE 31 1/4'		12:00	1
Company Time			
Cont'r Time			

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher _____
 Total Company Time _____ Hrs. Approved by _____

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.
Specify actual hours worked

Driller K. ANDERSON

Derrick F. FRASER
Floor

Floor L. SEPPALA

Floor _____
Motor B. BENFIELD

Mechanic

Injuries:

Fire:

1. The first step in the process of the formation of the new state is the declaration of independence. This is a formal statement by the people of the new state that they are no longer part of the old state and that they are now a separate and sovereign entity. This step is often followed by the adoption of a constitution, which sets out the basic principles and structure of the new state's government.

Tour — 8 a.m. to 4 p.m.
Specify actual hours worked

Driller _____

Derrick M JOHNSON
Floor 6 PRIDE

Floor

Motor C CADIEU

Mechanic

Exhibit V REPORT
Injuries:

Fires:

Your — 4 p.m. to Midn
Specify actual hours work

Driller N. Tompkins

Derrick E. LAMASH
Floor M. Mushumans

Floor _____

Motor R. MUSHUMARSA

Mechanic
Extra

Injuries:

Fi

Totco Ring on Bit No. _____

B.O.P. Test-Operated _____

From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands		
No.					No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	40		
103	1	3104	1/4	42	20	4 1/4	2	20				Singles		
No.	Size	Type	Size-Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars		
3	1 1/4	OWC	3-1/2	17902	26	20						600-01		
9	1 1/4	WT	3-1/2	18047								Other Ft.		
												C.B. Ft.		
MUD	12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives	At Surveys Degree			MOTOR HOURS		Next Oil Change	Subs. Ft.		
WEIGHT	73			93					1			1-24		
VISCOSITY	85			85					2			Ft. Up On Kelly		
GEL									3			16		
									4			TOTAL		
No. 1	Pressure	800		800					5			3120		
Model	S.P.M.	62		62										
300	Liner Size	5 X 1 1/4			Size	TRIPS	No. Lines	TON MILES	TOTAL MILES	Slip	Feet or	Cut	Feet Left on Spool	Next Slip
No. 2	Pressure													
Model	S.P.M.				General									
	Liner Size													
W.L.	F.C.	p.M.												

From		Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands			
										No.		O.D.		I.D.		Wgt.		Gals.		Bbls.		Tons	
3104		41		3145		4 1/2		41		20		4 3/4		1								K0	
																						Singles	
																						1	
																						D. Collars	
																						60001	
																						Other Ft.	
																						- 8. Ft.	
																						Subs. Ft.	
																						124	
																						Ft. Up On Kelly	
																						C	
																						TOTAL	
																						3151	
																						Next Slip	

From		Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands			
										No.		O.D.		I.D.		Wgt.		Gals.		Bbls.		Tons	
9145						41		20		4 3/4		2								40			
Singles																				1			
D. Collars																				600			
Other Ft.																				52-1			
C.B. Ft.																							
MUD		4 p.m.		6 p.m.		8 p.m.		10 p.m.		Additives				At Surveys Degree		MOTOR HOURS		Next Oil Change		Subs. Ft.			
WEIGHT		9.3												3145		1 1/2				1.24			
VISCOSITY		115														2				Ft. Up On Kelly			
GEL																3				6			
No. 1		Pressure		900												4				TOTAL			
Model		S.P.M.		45												5				3151			
300		Liner Size		5 x 1 1/4												Slip		Feet or		Cut			
No. 2		Pressure																		Feet Left on Spool			
Model		S.P.M.																		Next Slip			
General		PIPE TALLY		3151.66																			
		STRAP		3150.76																			
W.L.		F.C.		pH.																90 DIES. No CORR.			

DRILL
RIG SET
TRIP FOR BIT
CLEAN 75' TO BTM.

DRILL
RIG SER
DRILL
CIRAC SAMPLE
DRILL
CIR SAMPLE
DUMMY TRIP* 10 STD'S
CIR TO TEST

RIG SER SURVEY
STRAP OUT TO TEST
Blow Kelly Rig UP D.E.T.
Run in w/ D.S.T. #1
Rig UP TO TEST
TESTING

12 ⁰⁰	12 ¹⁵	1/4
12 ¹⁵	12 ³⁰	1/4
12 ³⁰	4 ¹⁵	3 3/4
4 ¹⁵	8 ⁰⁰	3 3/4

8	700	1 1/2
730	740	1 1/4
745	130	1 3/4
1130	1200	1 1/2
12	15	1 1/4
115	145	1
145	245	1
245	400	1 1/4

4	4	4
4 ¹⁵	6 ¹⁵	2
6 ¹⁵	7 ¹⁵	1
7 ¹⁵	9 ¹⁵	2
9 ¹⁵	9 ³⁰	4
9 ³⁰	12 [~]	2 ¹ / ₂

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher P. [Signature]
Total Company Time _____ Hrs. Approved by _____

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 35 LOCATION MR. DECATTA DEEP LAKE AREA 14.45 DATE MARCH 16, 1971

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked		No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	Singles
Driller	R. KEEFOWA	2947	43	2990	4 1/4	10	4 1/2	2	20				38	
Derrick	F. FRASER	1	6 1/4	YTIA	3/16	87933	25	120	719	1 1/4			100.01	
Floor	L. SEPPOLA												Other Ft.	
Floor													C.B. Ft.	
Floor													Subs. Ft.	
Motor	B. RENDFELD												1.24	
Mechanic													8	
Extra													TOTAL	
Injuries:													2990	
Fires:														

Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked		No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	Singles
Driller	Ken ANDERSON	2990	37	3027	3 1/4	40	10	1 1/4	2	20			38	
Derrick	M. JOHNSON	8	6 1/4	OWC	3-16	17902	25	120	37	3/4			600.01	
Floor													Other Ft.	
Floor	G. PRATER												C.B. Ft.	
Floor													Subs. Ft.	
Motor	C. CADIEUX												1.24	
Mechanic													9	
Extra	V. Hupp												TOTAL	
Injuries:													3029	
Fires:														

Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked		No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	Singles
Driller	N. TAMPKINS	3027	76	3103	7 1/2	40	20	4 1/2	2				40	
Derrick	E. LAMASH	8	6 1/4	OWC	3-16	17902	25	80	113	1 1/4			600.01	
Floor	M. MUSHKARSKI												Other Ft.	
Floor													C.B. Ft.	
Floor													Subs. Ft.	
Motor	R. MUSHKARSKI												1.24	
Mechanic													16	
Extra													TOTAL	
Injuries:													3120	
Fires:														

REMARKS	Time		
	Start	Stop	Interval
DALL	12 00	1 30	1 1/2
CIRC SAMPLE	1 30	2 30	1
WORK ON PUMP (STICK UNDER SEAT)	2 30	3 30	1
DRILL (HOLE CHANGING, FUR CONTAMINATED)	3 30	6 15	2 3/4
CIRC SAMPLE	6 15	7 00	3/4
DROP SURVEY	7 00	7 15	1/4
TRAP FOR BIT	7 15	7 00	3/4
TRIP OUT	8 00	9 30	1 1/2
Rig SER V Bops	9 30	9 45	1/4
TRIP IN	9 45	11 00	1 1/4
CLEANOUT PUMP	11 00	11 15	1/4
CLEAN 120' TO BIT	11 15	12 15	1
DALL	12 15	1 00	3/4
RIG SER DRILLING	4 00	4 15	1/4
	4 15	12 00	7 3/4

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher _____
 Total Company Time _____ Hrs. Approved by _____

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

DAY WORK RECORD

NOTE: Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 35 LOCATION H.R. DELATA DEEPHOLE AREA H 45 DATE MARCH 15 1971

Tour - Midnight - 8 a.m.		From		Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands						
Specify actual hours worked		Hrs.		No.		Size		Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		
Driller	R. KLEMOVA	8		2500	171	2671	6 1/4	40	20	4 1/2	2	20																
Derrick	F. FRASER	8																										
Floor	L. SEPPOLA	8																										
Floor																												
Floor																												
Motor	B. HENDFIELD	8																										
Mechanic																												
Extra																												
Injuries:																												
Fires:																												
Tour - 8 a.m. to 4 p.m.		From		Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands						
Specify actual hours worked		Hrs.		No.		Size		Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		
Driller	K. ANDERSON	8		2671	114	2795	4 1/2	40	20	4 1/2	2																	
Derrick	M. JOHNSON	8																										
Floor																												
Floor	G. PROCTOR	8																										
Floor																												
Motor	C. CADIEUX	8																										
Mechanic																												
Extra	V. Hupp	8																										
Injuries:																												
Fires:																												
Tour - 4 p.m. to Midnight		From		Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands						
Specify actual hours worked		Hrs.		No.		Size		Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		
Driller	N. TOMPKINS	8		2795	153	2948	6 1/2	40	20	4 1/2	2																	
Derrick	F. LAMASH	8																										
Floor	M. MUSHUMANSKI	8																										
Floor																												
Floor																												
Motor	R. MUSHUMANSKI	8																										
Mechanic																												
Extra																												
Injuries:																												
Fires:																												

REMARKS	Time		
	Start	Stop	Interval
DRILL	12:00	1:00	1
BIG SER L SWIVEL UNIVERSALS	1:00	1:15	1/4
DRILL	1:15	2:30	1 1/4
SURVEY	2:30	2:45	1/4
DRILL	2:45	3:45	2
CIRL SAMPLE	3:45	5:15	1 1/2
DRILL	5:15	6:45	1 1/2
SURVEY	6:45	7:00	1/4
DRILL	7:00	7:30	1/2
TRIP FOR BIT	7:30	8:00	1/2
Company Time			
Cont'r Time			
TRIP OUT	8:00	10:00	2
BIG SER L Bops Slip 12'	10:00	10:30	1/2
DRILL	10:30	11:30	1
TRIP IN	11:30	11:45	1/4
CLEAN TO BIT + WPLUG	11:45	12:45	1
DRILL	12:45	2:45	3
SURVEY	2:45	3:00	1/4
DRILL	3:00	4:00	1
Company Time			
Cont'r Time			
DRILLING	4:00	4:30	1/2
BIG SER	4:30	4:45	1/4
DRILLING	4:45	4:45	1
SURVEY	4:45	6:00	1 1/4
DRILLING	6:00	9:00	3
CIRL SAMPLE	9:00	9:30	1/2
DRILLING	9:30	10:00	1/2
CIRL SAMPLE	10:00	10:30	1/2
DRILLING	10:30	12:00	1 1/2
Company Time			
Cont'r Time			

Totco Ring on Bit No. _____ D.P. Calipered Data _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. _____ Toolpusher _____
 Total Company Time _____ Hrs. _____ Approved by _____

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 35 LOCATION H.R. DECATIA DEEP LAKE

AREA 445

DATE MARCH 19 1971

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller	R. KLEINER	2035	216	2251	6 1/4	138	20	4 1/4	2	20				26
Derrick	F. PARSON													
Floor	L. SERRA													
Floor														
Floor														
Motor	B. BENDERN													
Mechanic														
Extra														
Injuries:														
Fires:														

REMARKS	Time		
	Start	Stop	Interval
DRILL	12:00	12:30	1/2
RIG SER - UNIVERSALS + SWING	12:30	1:00	1/2
DRILL	1:00	1:30	1/2
SURVEY	1:30	1:45	1/4
DRILL	1:45	4:15	2 1/2
SURVEY	4:15	4:30	1/4
DRILL	4:30	7:00	2 1/2
	7:00	7:15	1/4
	7:15	8:00	3/4

Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller	K. ANDERSON	2251	74	2325	4 1/4	58	80	4 1/4	2	2				27
Derrick	M. JOHNSON													
Floor														
Floor	C. PRACOR													
Floor														
Motor	C. CADIEUX													
Mechanic														
Extra	V. Hupp													
Injuries:														
Fires:														

REMARKS	Time		
	Start	Stop	Interval
DRILL	8:00	8:30	1/2
RIG SER - BOP	8:30	8:45	1/4
DRILL	8:45	9:30	3/4
SURVEY	9:30	9:45	1/4
TRIP FOR BIT STRAP PIPE TO C	9:45	10:15	3
DRILL TO BIT	10:15	1:00	1 1/4
DRILL	1:00	1:00	3

Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller	N. Tompkins	2325	165	2500	7 1/4	79	26	4 1/4	2	2				30
Derrick	E. Lomash													
Floor	M. Mushumanski													
Floor														
Floor														
Motor	R. Mushumanski													
Mechanic														
Extra														
Injuries:														
Fires:														

REMARKS	Time		
	Start	Stop	Interval
DRILLING	4:00	5:00	1
SURVEY	5:00	5:15	1/4
RIG SER	5:15	5:30	1/4
DRILLING	5:30	9:30	4
SURVEY	9:30	9:45	1/4
DRILLING	9:45	12:00	2 1/4

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher *S. Dwyer*
 Total Company Time _____ Hrs. Approved by _____

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

DAY WORK RECORD

RIG No. 25 LOCATION H.R. DECATTA DEEPLAKE

AREA H. 45

DATE MAR 12 1971

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

Tour — Midnight - 8 a.m.		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
					No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	
Driller	R. KLEMMER	12			988	147	1135	5 1/4	30	20	4 1/2	2					8
Derrick	F. FRASER	12															
Floor	L. SEPPOLA	12															
Floor																	
Floor																	
Motor	B. BENDFIELD	12															
Mechanic																	
Extra																	
Injuries:																	
Fires:																	
MUD																	
WEIGHT 9.3 2.3 9.3 1 GEL 2000																	
VISCOSITY 62 68 75 A OVER 2 GAL																	
GEL																	
PUMPS																	
No. 1 Pressure 400 - 1/2 1/2																	
Model S.P.M. 62 V V																	
Liner Size 5 X 14																	
No. 2 Pressure																	
Model S.P.M.																	
Liner Size																	
W.L. F.C. pH.																	
Tour — 8 a.m. to 4 p.m.																	
Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands		
			No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION			
Driller	K. ANDERSON	12	1135	170	1305	6 1/4	30	20	4 1/2	2					11		
Derrick	M. J. HANSON	12															
Floor																	
Floor	G. PROCTOR	12															
Floor																	
Motor	C. PROCTOR	12															
Mechanic																	
Extra	V. Hupp	8															
Injuries:																	
Fires:																	
MUD																	
WEIGHT 8.9 8.9 8.9 8.9 GEL -																	
VISCOSITY 76 10 8.9 8.9 OVER -																	
GEL																	
PUMPS																	
No. 1 Pressure 500 - 1/2 1/2																	
Model S.P.M. 72 V V																	
Liner Size 5 X 14																	
No. 2 Pressure																	
Model S.P.M.																	
Liner Size																	
W.L. F.C. pH.																	
Tour — 4 p.m. to Midnight																	
Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands		
			No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION			
Driller			1305	89	1444	6	30	20	4 1/2	2					13		
Derrick																	
Floor																	
Floor																	
Floor																	
Motor																	
Mechanic																	
Extra																	
Injuries:																	
Fires:																	
MUD																	
WEIGHT 8.9 8.9 8.9 8.9 GEL -																	
VISCOSITY 65 69 72 GEL 1700																	
GEL																	
PUMPS																	
No. 1 Pressure 500 - 1/2 1/2																	
Model S.P.M. 62 V V																	
Liner Size 5 X 14																	
No. 2 Pressure																	
Model S.P.M.																	
Liner Size																	
W.L. F.C. pH.																	

REMARKS	Time		
	Start	Stop	Interval
DRILL	12 00	12 45	1/4
RIG SER ✓ SWING + UNIVERSALS	12 45	1 15	1/2
DRILL	1 15	3 30	2 1/4
SURVEY	3 30	3 45	1/4
DRILL	3 45	5 00	1 1/2
TRIP FOR BIT	5 00	6 00	1
RUN IN WITH #3 HIT KEEL @	6 00		
599 + 948 PICKED UP KEEL + MARKED			
SHAPE 5' FILL ON BTM		7 00	1
DRILL	7 00	8 00	1
Company Time			
Cont'r Time			
Rig SER ✓ Bops	8 00	8 30	1/2
SURVEY	8 30	8 45	1/4
DRILL	8 45	12 15	3 1/2
SURVEY	12 15	12 30	1/4
DRILL	12 30	3 30	3
SURVEY	3 30	3 45	1/4
DRILL	3 45	4 15	1/4
Company Time			
Cont'r Time			
Rig SER	4 00	4 15	1/4
DRILL	4 15	7 45	3 1/2
SURVEY	7 45	8 00	1/4
DRILL	8 00	10 30	2 1/2
DRILL SURVEY	10 30	10 45	1/4
TRIP FOR BIT	10 45	12 00	1 1/4
Company Time			
Cont'r Time			
Total Contractor Time	Hrs.		
Total Company Time	Hrs.		
Toolpusher			
Approved by			

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 35 LOCATION H.P. REGMITH OVERLAKE AREA H-45 DATE MARCH 11, 1971

Team — Midnight - 8 a.m.		From		Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands							
Specify actual hours worked		Hrs.		No.		Size		Type		Size		Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION	
Driller	R. KLEMDER	12		390	130	520	2 1/4	20	16	4 1/4	2	18																	
Derrick	F. FRASER	12																											
Floor	L. SEPPOLD	12																											
Floor																													
Motor	B. BENAFERD	12																											
Mechanic																													
Extra																													
Injuries:																													
Fires:																													
Team — 8 a.m. to 4 p.m.		Hrs.		From		Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands					
Specify actual hours worked		Hrs.		No.		Size		Type		Size		Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION	
Driller	A. ANDERSON	12		520	340	860	6	22	20	4 1/4	2	20																	
Derrick	M. JOHNSON	12																											
Floor	G. PRATER	12																											
Floor																													
Motor	C. GABRIEL	12																											
Mechanic																													
Extra	V. HUPP	8																											
Injuries:																													
Fires:																													
Team — 4 p.m. to Midnight		Hrs.		From		Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands					
Specify actual hours worked		Hrs.		No.		Size		Type		Size		Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION	
Driller				860	128	988	5 1/2	24	20	4 1/4	2																		
Derrick																													
Floor																													
Floor																													
Motor																													
Mechanic																													
Extra																													
Injuries:																													
Fires:																													

REMARKS	Start	Stop	Interval
FINISH. HAISING UP.	12:00	1:30	1 1/2
PRESSURE UP BLIND RAMS 1000 PSI	12:30	2:00	1 1/2
PICK UP 12 IN. + PIPE	2:00		
PRESSURE UP PIPE RAMS, HYDRA			
1 KELLY COLL TO 1000 PSI HEADWORK			
✓ MOTOR SHUT OFFS		4:00	1
DRILL OUT PLUG, LEIGHT + SHOE	4:00	4:45	3/4
DRILL 6 1/2 HOLE	4:45	6:00	1 1/4
CLEAN DRILL PIPE	6:00	7:00	1
DRILL	7:00	7:30	1/2
CIRCU MIX MUD.	7:30		
CRANK WASH + CRANK.		8:00	1/2
Company Time	8:00	8:15	1/4
Rig Sur. v BOP.	8:15	10:15	2
DRILL	10:15	10:30	1/4
SURVEY	10:30	12:30	2
DRILL	12:30		
HOLE GETTING RIGHT CIRCU		1:05	1/4
RAISE VIB	1:05	2:45	1 3/4
DRILL	2:45	4:15	1 3/4
SURVEY			
Company Time	4:00	5:45	1 3/4
TRIP FOR BIT	5:45	6:30	3/4
DRILL HILDING UP	6:30	6:45	1/4
SURVEY	6:45	8:00	1 1/4
DRILL	8:00	8:45	3/4
SURVEY	8:45	10:15	1 3/4
DRILL	10:15	10:30	1/4
SURVEY	10:30	11:30	1
DRILL	11:30	12:00	1/2
Company Time			

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. _____ Toolpusher _____
 Total Company Time _____ Hrs. _____ Approved by _____

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 35 LOCATION M.R. DECKA DEEP LAKE AREA H-45 DATE MARCH 10, 1971

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked	Hrs.						No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller <u>H. KLEMMER</u>	12	304	86.390	374	18									
Derrick <u>L. FRASER</u>	12													
Floor <u>L. SETPOLD</u>	12													
Floor														
Floor														
Motor <u>M. BENDFIELD</u>	12													
Mechanic														
Extra														
Injuries:														
Fires:														
Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked	Hrs.						No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller <u>K. ANDERSON</u>	12													
Derrick <u>M. JOHNSON</u>	12													
Floor <u>G. PROCTOR</u>	12													
Floor														
Motor <u>C. CADIENX</u>	12													
Mechanic <u>V. Hupp</u>	8													
Extra														
Injuries:														
Fires:														
Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked	Hrs.						No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller														
Derrick														
Floor														
Floor														
Floor														
Motor														
Mechanic														
Extra														
Injuries:														
Fires:														

REMARKS	Time		
	Start	Stop	Interval
RIC SEA 1 NIVEL UNIVERSALS	12:00	12:30	1/2
ORIG	12:30	2:00	1 1/2
CLEAN SECTION + PRIME PUMP	2:00	3:00	1 1/2
ORIG	3:00	3:15	1/4
DROP SURVEY	3:15	3:30	1/4
DUMMY TRIP	3:30	4:00	1/2
CIRC HOLE CLEAN	4:00	4:30	1/2
LAY DOWN D.C. BLOW KELLY	4:30	6:00	1 1/2
RIG TO RUN CSG + RUN CSG	6:00	7:00	1
Company Time Cont'r Time			
Plug Down @ 9:05 AM MARCH 10/71			
Plug CSG	8:00	8:30	1/2
Convert. + Pump Plug	8:30	9:00	1/2
W.O.C.	9:00	1:00	4
CHANGE HEADS + LIFER	1:00		
NIPPLE UP BOPS			3
Company Time Cont'r Time			
NIPPLE UP BOPS	4:00		
FINISH CHANGING HEADS + LIFERS		12:00	
Company Time Cont'r Time			

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher B. Wright
 Total Company Time _____ Hrs. Approved by _____

KENTING OILWELL DRILLING

DIVISION OF KENTING EXPLORATION SERVICES LTD.

DAILY DRILLING REPORT

H-45

DAY WORK RECORD

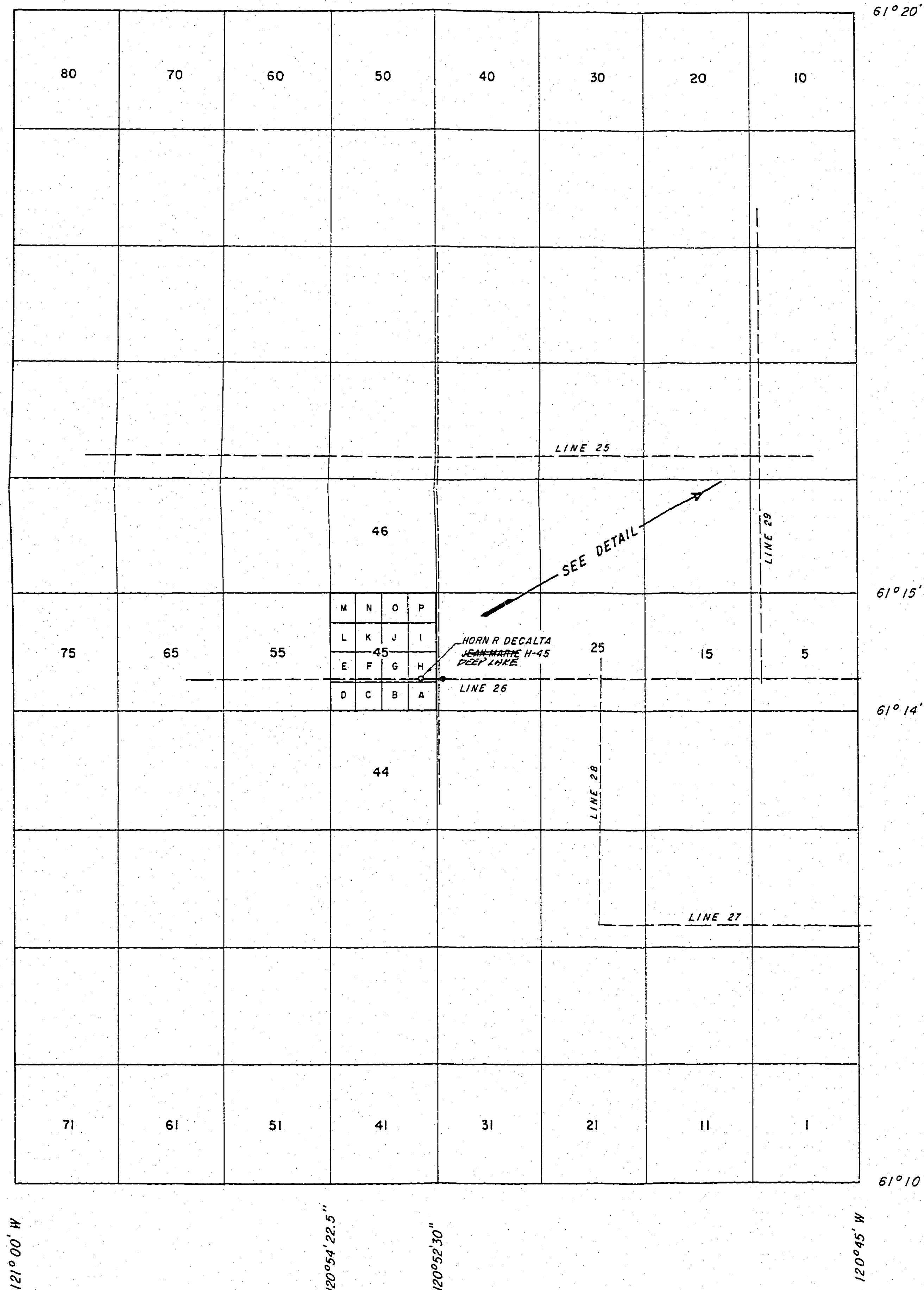
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 35 LOCATION H.B. DECALE REEPLAKE WELL #7 AREA CENE. MARIK DATE MARCH 9 1971

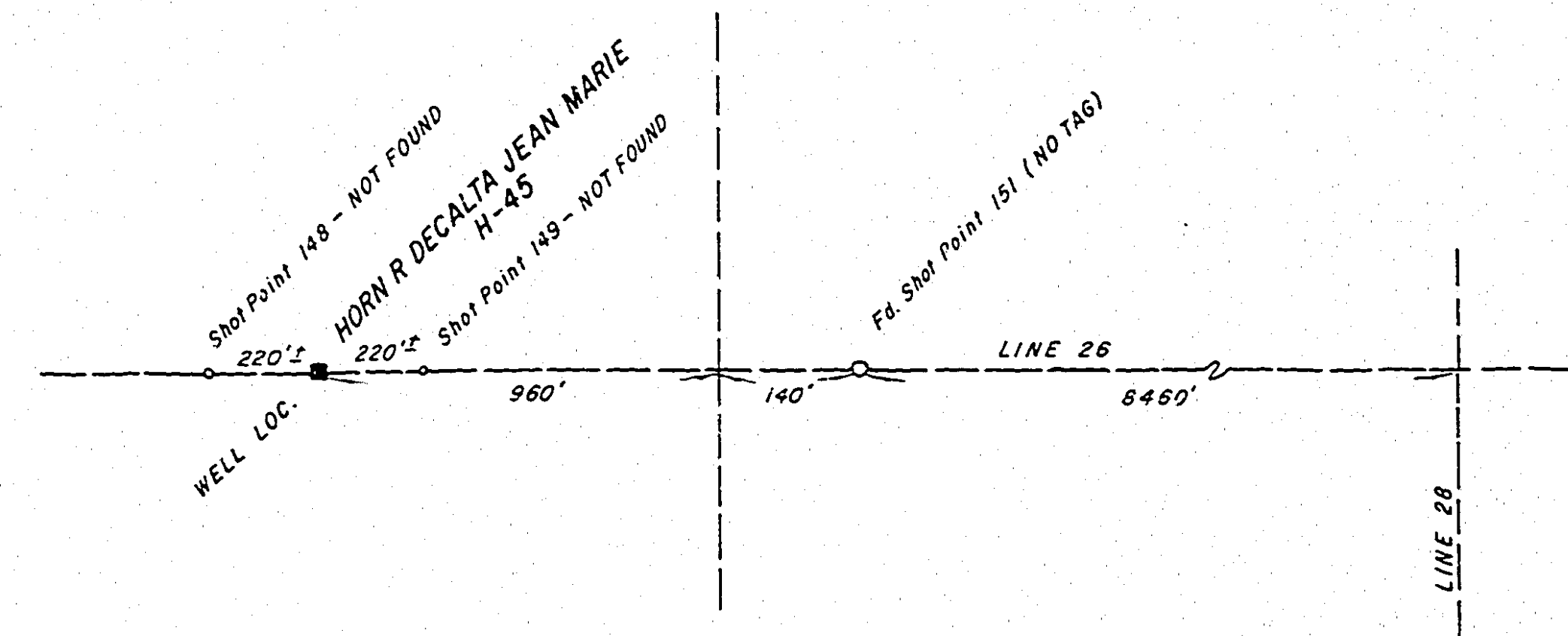
Tour — Midnight - 8 a.m.		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
										No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons					
Driller	R. KLEMMER			12																	
Derrick	E. FRASER			12																	
Floor	L. SEPPOLA			12																	
Floor																					
Floor																					
Motor	B. BUNDLED			12																	
Mechanic																					
Extra																					
Injuries:																					
Fires:																					
Tour — 8 a.m. to 4 p.m.		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
										No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons					
Driller	A. ANDERSON			12																	
Derrick	M. JOHNSON			12																	
Floor																					
Floor	G. PROCTOR			12																	
Floor																					
Motor	C. CADIEUX			12																	
Mechanic																					
Extra	V. HUPP			4																	
Injuries:																					
Fires:																					
Tour — 4 p.m. to Midnight		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
										No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons					
Driller																					
Derrick																					
Floor																					
Floor																					
Floor																					
Motor																					
Mechanic																					
Extra																					
Injuries:																					
Fires:																					

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher _____
 Total Company Time _____ Hrs. Approved by _____



NOTE : Relative to Seismic information supplied by client.



DETAIL
Not to Scale

Note : Well is to be drilled half way between Shot Points 148 and 149, Line 26.

HORN RIVER RESOURCES LTD. PLAN SHOWING SHOT POINT LOCATION OF HORN R DECALTA DEEP LAKE H-45 FORT SIMPSON AREA NORTHWEST TERRITORIES

Scale : 1" = 1 mile

GRID AREA : 61° 20' N, 120° 45' W.

Certified correct, February 19th, 1971.

W. S. Duggan
Dominion Land Surveyor

SIGNATURES FOR
HORN RIVER RESOURCES LTD.

Chas. Bulley



CANADIAN ENGINEERING SURVEYS CO. LTD.
EDMONTON ALBERTA

JOB NO : C-6510
DATE : FEB. 19th / 71
DRWG. NO. : 6510-M-1

